

REMARKS

To expedite prosecution and place the instant application in condition for allowance, Applicants have amended independent claim 1 to more clearly set forth the inventive concept. Specifically, claim 1 as amended herewith defines a nanotextured biocompatible composite comprising a biocompatible substrate and a mineral phase on said substrate, wherein the mineral phase comprises a calcium phosphate component, nanofibers of peptide amphiphiles, and poly(L-lysine), wherein the nanofibers are coupled to the poly(L-lysine) on the calcium phosphate component. Support for this limitation is found in the specification as originally filed, for example, at page 18, lines 3-30 and in original claim 4.

Claim 4 was amended to reflect the amendments to claim 1 and correct a typographical error. Claim 5 was amended to recite that the claim-designated peptide amphiphiles comprise a sequence comprising arginine, glycine and aspartic acid.

Upon the entry of the instant amendment, claims 1-7 are pending in the application. Applicants respectfully request that the Examiner reconsider the outstanding rejections in light of the aforementioned amendments and the following remarks:

Rejection under 35 USC § 112, Second Paragraph Rejection

Claim 5 was rejected under 35 USC 112, second paragraph as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

The Examiner states that it is not clear what constitutes an RGD sequence other than RGD itself. Applicants have amended claim 5 to more clearly define that a sequence comprising arginine, glycine and aspartic acid would meet this claim limitation. For example, it is Applicants' contention that a suitable sequence comprising arginine, glycine and aspartic acid would include, for example, any of the following: RGD, DGR, RGDS, GRGDS, and SDGRG. Applicants submit that the amended language clarifies the intended meaning of "RGD sequence." Withdrawal of the rejection is respectfully requested.

Rejections under 35 U.S.C. § 102

Claims 1-7 are rejected under 35 USC 102 as allegedly being anticipated by Peterson (USP 5,733,868). According to the Examiner, Peterson discloses compositions which comprise a polyamino acid and hydroxyapatite.

Applicants have amended claim 1 to be directed to a nanotextured biocompatible composite comprising a biocompatible substrate and a mineral phase on said substrate, wherein the mineral phase comprises a calcium phosphate component, nanofibers of peptide amphiphiles, and poly(L-lysine), wherein said nanofibers are coupled to the poly(L-lysine) on the calcium phosphate component. Peterson nowhere describes the use of peptide amphiphiles coupled to poly(L-lysine) on the calcium phosphate component on a biocompatible substrate. As such, Peterson does not teach each and every element of the claimed invention and withdrawal thereof is respectfully requested.

Claims 1-7 are rejected under 35 USC 102 as allegedly being anticipated by Stupp (USP 6,051,272). The Examiner asserts that Stupp discloses compositions containing polylysine and calcium phosphate.

As indicated above, independent claim 1 has been amended to more clearly reflect the invention. Stupp does not describe the use of nanofibers of peptide amphiphiles coupled to poly(L-lysine) on the calcium phosphate component of the claimed composite. Withdrawal of the rejection is respectfully requested.

Claims 1-7 are rejected under 35 USC 102(a) as allegedly being anticipated by Gergely. The Examiner states that Gergely discloses compositions containing polylysine and calcium phosphate.

Independent claim 1 has been amended to more clearly reflect the invention. Gergely does not describe the use of nanofibers of peptide amphiphiles coupled to poly(L-lysine) on the calcium phosphate component of the claimed composite. Withdrawal of the rejection is respectfully requested.

Rejections under 35 U.S.C. § 103

Claims 1-7 are rejected under USC 103 are rejected as allegedly being unpatentable over Peterson (USP 5,733,868).

For the reasons set forth above, Applicants respectfully submit that Peterson does not render obvious the invention as claimed herein. Peterson does not teach or suggest the use of peptide amphiphiles coupled to poly(L-lysine) on the calcium phosphate component of the claimed composite. Withdrawal of the obviousness rejection is respectfully requested.

Claims 1-7 are rejected under 35 USC 103 are rejected as allegedly being unpatentable over Stupp (USP 6,051,272).

For the reasons set forth above, Applicants respectfully submit that Stupp does not render obvious the invention as claimed herein. Stupp does not teach or suggest the use of peptide amphiphiles coupled to poly(L-lysine) on the calcium phosphate component of the claimed composite. Withdrawal of the obviousness rejection is respectfully requested.

Claims 1-7 are rejected under 35 USC 103 are rejected as allegedly being unpatentable over Gergely.

For the reasons set forth above, Applicants respectfully submit that Gergely does not render obvious the invention as claimed herein. Gergely does not teach or suggest the use of peptide amphiphiles coupled to poly(L-lysine) on the calcium phosphate component of the claimed composite. Applicants respectfully request reconsideration and withdrawal of the obviousness rejection.

Conclusion

In sum, Applicants respectfully submit that the amendments and remarks herein render moot the outstanding rejections set forth in the Office Action mailed June 20, 2006, and place the instant application in condition for immediate allowance. However,

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in the event the Examiner believes a conference would expedite prosecution, he is courteously invited to contact the undersigned.

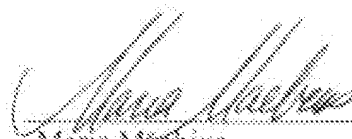
The previous Office Action set forth a three-month period for response, response being due on or before **September 20, 2006**. Accordingly, Applicants submit that this response is timely and no additional fee is required.

Respectfully submitted,

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